



Rescue The Red Knot

ISSUE 14, July 2002

One of the many fascinating features of the Pinelands National Reserve (PNR) is that, while it does not include the entire New Jersey Pine Barrens, it does contain some highly significant wildlife habitat lying adjacent to that ecosystem. A prominent example is a portion of the Delaware Bay shore in Cumberland and Cape May Counties. The critical importance of the Delaware Bay shore within the PNR is highlighted by the current plight of a State-listed threatened bird species: the Red Knot—*Calidris canutus*.

The imperiled Red Knot is a beautiful shorebird with a phenomenal natural history. According to *The Sibley Guide To Birds* (David Allen Sibley, 2000), it is ten and a half inches long, with a wingspan of twenty-three inches. (A Blue Jay is eleven inches long, with a wingspan of sixteen inches.) Breeding adult plumage is a “unique pale salmon” on the breast, neck and head, with an attractive scaled pattern of black, gray, white, and salmon on the back.

According to *Birds of New Jersey* (Walsh, et. al., 1999) Red Knots can be seen regularly—though in precipitously decreasing numbers—along the Delaware Bay shore, in company with Sanderling and Ruddy Turnstones, “mainly from mid-May to early June.” **They appear in our neighborhood at this time of year, in order to “fuel up” during an incredibly long journey.**

The major eastern population of Red Knots is in



Red Knots, juvenile, left, and adult in breeding plumage, right, from <http://museum.gov.nj.ca/mnh/nature/>

company with several species of shorebirds that complete spectacular annual migrations. Most of “our” Red Knots winter in Tierra Del Fuego (the archipelago at the southern tip of South America). They fly each spring to northern Canada to reproduce. **Their stopover at the Delaware Bay shore has long been recognized as a critical point in their migration itinerary.**

In the article, “Shorebird Migration and Conservation,” in *The Birder’s Handbook*, (Ehrlich, et. al., 1988) the importance of stopover sites for migrating shorebirds is stressed. “The series of critical stopover sites is typified by Delaware Bay. The arrival and departure of 500,000 to 1,500,000 shorebirds within a span of three to four weeks is synchronized with the annual breeding cycle of the bay’s enormous population of horseshoe crabs, for it is the eggs of the crabs that supply the energy required by the birds to complete their spring journey to the arctic.”

But now, it has become clear that over harvesting of Horseshoe Crabs has dramatically reduced the population of egg-laying adult crabs and the number of eggs available to migrating shorebirds. This should come as no surprise. **Horseshoe Crabs have been harvested from Delaware Bay in enormous numbers at least since the mid-1800’s.**

Henry W. Fowler provided a fascinating report concerning the harvest of Horseshoe Crabs that was published with the supplements to the 1907 New Jersey State Museum *Report of the Mammals of New Jersey*. In his report, which borrowed from a 1856 account by Professor George H. Cook, he graphically described the exploitation of the creatures.

“The number of eggs is very great,” he said. “They have been so thick along the shore that they could be shoveled up and collected by the wagonload. Great numbers have thus been gathered up and carried away to feed chickens.”

(Continued from page 1)

The crabs themselves were captured by the millions and used for hog feed and “manure.” Fowler said, “They appear...to be decreasing year by year.” He speculated that the introduction of huge traps along the Bay Shore about 1870 “may have had some influence on their numbers.”

Nowadays, they are harvested for use as conch and eel bait. Intensive research, in the last several years, by the Endangered & Nongame Species Program (ENSP), NJ Division of Fish & Wildlife, has fully documented the consequences of a century and a half of Horseshoe Crab exploitation. Eastern Red Knots are declining at an alarming rate. ***The population has apparently shrunk to about half of what it was in 1997.***

While several factors have contributed, state biologists are convinced that the drastic reduction of Horseshoe Crab eggs, especially in recent years, is the primary cause of the decline of the Knots. Any sensible strategy to reverse this trend must include an immediate moratorium on the harvesting of Horseshoe Crabs.

New Jersey Audubon Society (NJAS) is leading the campaign to establish the moratorium. The Endangered & Nongame Species Advisory Committee—the group of citizen experts who work with ENSP—are fully in support of this measure. We encourage you to visit the NJAS website, **<http://njudubon.org>**, and participate in this important initiative. You may also want to contact Eric Stiles, the NJAS Vice President for Conservation and Stewardship at 908-766-5787, who is organizing the campaign.

Also, the ENSP has excellent resources, on line, with more detailed information. Visit **<http://www.state.nj.us/dep/fgw/ensphome.htm>**.

What Can You Do?

Write, call, or e-mail Governor McGreevey and ask him to establish a moratorium on the harvest of Horseshoe Crabs.

The Honorable James McGreevey
Governor of New Jersey
State House, PO Box 001
Trenton, New Jersey 08625-0001
609-292-6000

<http://www.state.nj.us/governor/govmail.html>

New Jersey Audubon Society Summary of the Red Knot Plight

1. There has been a 54% decline in the number of wintering Red Knots in Tierra del Fuego, South America since 2000. In 2002, researchers counted 20,755 Red Knots; this is a 30% decline from the 2001 count of 29,335 and a 54% decline since 2000 (45,150 individuals).
2. Similarly, many shorebird species have shown a significant decline. The number of Red Knots counted on the Delaware Bay is decreasing by 17.9% per year.
3. Studies show daily weight gains of Red Knot and Semipalmated Sandpipers have dropped precipitously. The disappearance of horseshoe crabs is the culprit. In fact, many birds leave the Delaware Bay without enough fat reserves to reach the Arctic breeding grounds.
4. Horseshoe crab egg counts on the Delaware Bay show an alarming decline in the amount of Horseshoe crab eggs available to foraging shorebirds. This is consistent with Delaware survey trawl data showing a 75% decline in horseshoe crabs in 11 years.
5. Horseshoe crabs are a long-lived species, not reaching sexual maturation until 9 years of age. Harvesting is allowed to occur even though no stock assessment has been completed for this species. We are harvesting in the absence of sound science.

(All above material from: <http://www.njudubon.org/>)



Photo of a very large Horseshoe Crab pen on the Delaware Bay. From *Annual Report of the New Jersey State Museum, 1907*, which includes *Mammals of New Jersey and a Supplement to Former Reports*, published 1908. Printed with permission.

**PPA Provides Public Education On
Threatened And Endangered
Species Of The Pinelands**

In addition to PPA's general slide presentation about the Pinelands and the strategies to protect this unique region, a new slide presentation entitled the Threatened and Endangered Species of Pinelands is now available.

All the legally protected animals and plants that occur in the Pinelands National Reserve are featured, including 21 birds, three snakes, two frogs, two turtles, two salamanders, and the 54 plant species.

This presentation includes outstanding color slides of all the animals, with their respective range maps. All of the 54 plant species protected under the Comprehensive Management Plan are shown, as well, many of them in color.

The presentation includes an introduction to the legal protections that are in effect for these plants and animals and their habitats, tips on identifying them, and suggestions on the many ways we can help protect and restore their habitats and populations.

Call PPA to schedule a presentation.

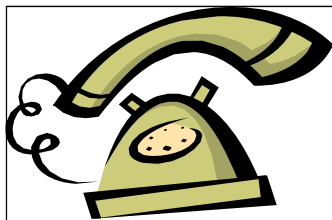
**South Jersey ORV Task Force Led By PPA
Delivers Clear Message
To Commissioner Campbell**

In a letter dated June 14, 2002, the South Jersey Task Force For Responsible ORV Recreation, organized by PPA, presented a plan to Commissioner Bradley M. Campbell. The stated goal is to "provide reasonable opportunities for responsible ORV enthusiasts without compromising the quality of our wildlife communities and private properties."

As the DEP is actively developing a policy for regulating ORV traffic, it is extremely important that you contact the Commissioner's office and insist that the Department develop a truly effective, comprehensive program. **You can reach the Commissioner's office by calling 609-292-2885.**

The strategy proposed to the Commissioner by the South Jersey Task Force consists of a three-point plan:

"First, it is imperative that the state adopts a comprehensive statewide plan to regulate ORV traffic, beginning with registration of all the vehicles. Registration of the vehicles provides the key to funding the program. Secondly, we encourage the state to make progress toward develop-



Your phone calls count!

**RESOURCES
RESOURCES
RESOURCES**

- PINELANDS PRESERVATION ALLIANCE*
www.pinelandsalliance.org/
- NEW JERSEY AUDUBON SOCIETY*
www.njaudubon.org/
- NEW JERSEY CONSERVATION FOUNDATION*
www.njconservation.org/
- SIERRA CLUB, NEW JERSEY CHAPTER*
www.sierraactivist.org/
- THE NATURE CONSERVANCY*
<http://nature.org>
- THE FORKED RIVER MOUNTAIN COALITION*
www.frmc.org/
- LEAGUE OF WOMEN VOTERS*
www.lwv.org/
- NEW JERSEY ENVIRONMENTAL
FEDERATION*
732-280-8988
- GARDEN STATE ENVIRONET*
www.gsenet.org
- ASSOCIATION OF NEW JERSEY
ENVIRONMENTAL COMMISSIONS*
www.anjec.org
- SAVE BARNEGAT BAY*
www.savebarnegatbay.org
- ALLIANCE FOR LIVING OCEAN*
www.livingocean.org
- BARNEGAT BAY WATERSHED &
ESTUARY FOUNDATION*
www.bbweif.org
- STATE OF NEW JERSEY*
www.state.nj.us/
www.state.nj.us/pinelands/
www.state.nj.us/dep/



ment of comprehensive management plans for individual state properties in conjunction with its consideration of the development of ORV parks on any of those lands. Thirdly, the state must adhere to a strict set of criteria in reviewing proposals for specific ORV parks."

The South Jersey Task Force recommended that registration fees be calculated cover all costs of the program, including the establishment of *entirely contained* ORV parks on *carefully selected* sites. Mandatory education for all applicants, new programs for effective state-wide law enforcement, and effective tagging of all vehicles were also part of the recommendation.

Call PPA for a copy of the letter or for more details.

Pinelands Preservation Alliance
114 Hanover St.
Pemberton, NJ 08068

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Pinelands Plan Is A Big Compromise

True or False?

“Today, with the Pinelands Comprehensive Management Plan, the region is protected in a manner that maintains its unique ecology while permitting compatible development.”

This statement, directly from the Pinelands Commission home page, no doubt expresses a hope and an intention shared by many. Unfortunately, it isn't true.

We know of too many cases where development—notably in Regional Growth Areas—has simply changed a Pine Barrens forest into a neighborhood that has all the trappings of typical suburbia: wide expanses of lawn, paved roads and driveways, clearing of the characteristic Pinelands vegetation, the planting of non-native plants, and the ultimate disappearance of the animals that used to make that forest their home.

As PPA has often emphasized, the New Jersey Pinelands Comprehensive Management Plan (CMP) was designed as a compromise between the impulse

to protect the region and the pressure to develop it. *It is not at all clear that the provisions in the plan are sufficient to preserve the unique ecology of the region in the long term.*

It is clear that leniency on the part of the commission and new layers of compromise not contemplated by the original plan have introduced widespread, permanent adverse modifications to our Pinelands wildlife habitats. After twenty-some years of “compatible development,” one of the greatest treasures of the State of New Jersey, the Pinelands population of federally-listed Swamp-pink—*Helonias bullata*—is declining.

PPA thinks this trend can change. How? More watchdogs. We need more early warnings, more people who will monitor development applications in their own backyards. That's what ***Pinelands Watch*** is all about.

Call us and let us know what's happening in your neighborhood.

